



The SPERRY UTS 40 is a microprocessor-based intelligent terminal or desktop computer which is user programmable with up to 64K bytes of user memory. It supports a wide range of peripheral devices including printers, diskette subsystems and magnetic stripe reader. Programming of the UTS 40 is accomplished easily in COBOL. With the addition of the CP/M\* PLUS®, a user may choose from many compiler languages and application programs available from Sperry identified distributors and independent software vendors. The UTS 40 can therefore operate in a multifunctional environment, one of which provides personal computing in an office environment utilizing CP/M.

The UTS 40 consists of a 12-inch diagonal CRT display and offers a selection of four different pluggable keyboards. The

expanded keyboard (94 keys) provides a typewriter layout (ISO 3243) plus function and numeric pads. Another version of the expanded keyboard provides keycaps labeled for the Text Processing Utility. Lastly, a UTS 400 compatible keyboard with domestic USA keycaps is offered.

Two basic versions of the UTS 40 are available—the single station UTS 40 and the cluster workstation UTS 40W. As a single station, the UTS 40 communicates with a host system via an RS 232/V.24 modem interface or via a direct connect to a host communications multiplexer. It is supported on V77, Series 1100, Series 90, and System 80 mainframe systems.

The “personality” of the UTS 40 is provided by means of a program cartridge which plugs

into the back of the unit. A UTS 400 mode program cartridge is available with the UTS 40. When configured with the CP/M cartridge, the UTS 40 Single Station will support additional capabilities, while still retaining standard functions. Additional capabilities include an RS 232 interface for printers and a 5¼ inch diskette interface. A variety of Sperry Printers with RS 232 interface are supported. Up to four 5¼ inch diskette drives may be attached to the diskette interface for operation with CP/M programs.

Program cartridges offer several advantages to users of the UTS 40. Among these are:

- The ability to incorporate system updates by user insertion of a new cartridge.
- The capability to take advantage of future terminal enhancements without having

to upgrade to an entirely new terminal.

As a local workstation, the UTS 40W is directly attached to the UTS 4020 and the UTS 4040 cluster controllers. Up to 12 workstations can be attached to the UTS 4020 and up to 32 workstations to the UTS 4040. The UTS 40W cluster workstation does not require a program cartridge nor a modem interface. Its microcode is loaded at a very high speed from the cluster controllers. CP/M can also be used with this terminal.

Underlying the design of the UTS 40 are extensive human engineering considerations derived from accumulated experience on similar and related terminals. As a result, the UTS 40 is designed for easy, straightforward operation. The optional tilt/rotate base minimizes the need for awkward head or body positions. The operator's field of view of the display is well within normal eye span; the keyboard is designed for comfortable touch-typing and the terminal is virtually silent. All the control keys required to operate the terminal and initiate data transfer are located on the keyboard and are easily reached. Because the keyboard is similar to that of a typewriter, little additional training is required to operate the terminal system and use its many extra capabilities. If the operator desires, the terminal will generate an audible click for each character successfully entered from the keyboard.

The non-glare visual display consists of green characters on a dark background. The entire display is flicker-free and the characters are sharp and bright, resulting in excellent legibility and clarity of presentation. Character brightness is operator adjustable. The nearly vertical

CRT provides a natural viewing angle. All of these features provide maximum viewing comfort for the operator.

The SPERRY UTS 40 offers extensive hardware and software functionality in the areas of programmability and peripheral configurability. This allows users to solve sophisticated data entry applications with considerable local processing while, at the same time, maintaining all traditional capabilities of an interactive terminal.

#### **Programmability**

- UTS COBOL (Subset of ANSI Std. X3.23—1974)

UTS COBOL programs are compiled in a SPERRY host system (Series 1100, System 80, or Series 90).

- CP/M Feature

The CP/M Feature and software package enables the UTS 40W and UTS 40 to operate as a stand-alone computer. The CP/M operating system is supplied by SPERRY on diskette.

The package includes an assembler, utilities, and extensive documentation. CP/M compatible high-level language compilers and application programs may be purchased directly from Independent Software Vendors.

#### **Peripheral Configurability**

- Up to four peripherals on the parallel interface.
  - 8" diskette—up to four megabytes of storage.
  - Choice of five printer models.
    - 80 column matrix printer, 80 CPS
    - 132 column matrix printer, 200 CPS
    - 132 column maxtrix printer, 400/100 CPS
    - Correspondence quality printer

- Line printer, 180 or 300 LPM

- Up to 2 printers on the RS 232 peripheral interface.
  - 80 column matrix printer, 80 CPS
  - 132 column matrix printer, 200 CPS
  - 132 column matrix printer, 400/100 CPS
  - Correspondence quality printer
- 5¼-inch diskette interface—up to 2.6 megabytes of storage. The 5¼-inch diskette is supported under CP/M and for conversion of 8-inch to 5¼-inch diskettes.

#### **Software Utilities**

- Diskette file management
- Text processing utility
- Loadable character set generator
- Edit processor

Other features of the UTS 40 include:

- Screen bypass
- Character descenders
- Reverse video and high/low intensity
- User entry of site parameters including station and device identifiers
- 25th display line for indicators
- Line monitor function via control page
- UNISCOPE character protect in basic unit
- Up to 80 field control characters per line
- New emphasis attributes such as underline and strike-through

The UTS 40W cluster workstation may be configured with up to four peripheral devices. User memory is available for the loading of certain utility software such as the Text Processing Utility.

For more information on this advanced terminal system, contact your local Sperry representative.



## SPERRY UTS 40

### FUNCTIONAL CHARACTERISTICS

#### Display Format Selections

Any display format may be selected from 2 lines of 2 characters each to 24 lines of 80 characters each.

#### View Area

10 inches x 7 inches

#### Display Size

12 inch diagonal

#### Character Generation

7 by 11 dot matrix, refresh rate of 60 or 50 times per second

#### Character Generator

Standard 96-character set (128 characters in Katakana)

#### Transmission Code

7-level ASCII plus parity bit

#### Transmission Mode

Half-duplex

#### Transmission Facilities

Voice grade (telephone switched network or private line)

#### Transmission Type

Synchronous

#### Transmission Rates

Up to 9,600 bits per second

#### Communications interfaces

EIA RS-232C/CCITT V.24

#### Data Integrity Provisions

- Minimum single bit error detection on communication line and peripheral transfers
- Automatic retry with communication line and peripheral transfers
- Internal parity checking

## Two Security Keylocks (std)

Operator  
Supervisor

### Selective Addressing

Host processor can select any terminal or peripheral device or both. Host can initiate data transfer from the terminal or peripherals.

### Keyboards

- Expanded typewriter (full function with numeric keypad)
- Expanded typewriter—Low profile
- Expanded typewriter with Text Processing Keys.
- UTS 400 format

### Language Selections (expanded typewriter keyboard only)

Domestic (U.S. ASCII)  
United Kingdom  
French  
German  
Spanish  
Danish/Norwegian  
Finnish/Swedish  
Italian

### Protected Format

Protection of specified data fields as defined by field control characters or UNISCOPE character protect sequences.

### Program Attention Keys

Keys that generate unique codes for use as requests or indicators to host or user programs, extending operational and system control.

### Editing and Other Function Keys

- cursor control
- character, field, line, screen editing
- peripheral control
- miscellaneous

### PHYSICAL CHARACTERISTICS

Width: 16.75 inches (42.5 cm)  
Height: 12.75 inches (32.5 cm)  
Depth: 17.00 inches (43.0 cm)  
Weight: 40 pounds (18 kg)

### POWER REQUIREMENTS

#### Nominal Voltage

110, 120, 220 or 240 volts

## Nominal Frequency

50 or 60 Hz

## Phases and Lines

Single phase, 3 wire

## Input Power Required

150 volt-amps

## Heat Dissipation

274 BTU/hr.

## Power Dissipation

468 kj/hr.

## SPERRY Magnetic Stripe Reader

### FUNCTIONAL CHARACTERISTICS

#### Code Formats

American Bankers Assoc. (ABA) up to 40 numeric characters.  
International Air Transport Assoc. (IATA) up to 79 alphanumeric characters.

#### Read Speed

Data is transferred to the UTS 40 a character at a time in 20 ms intervals.

### PHYSICAL CHARACTERISTICS

Width: 1.64 inches (4.2 cm)  
Height: 1.37 inches (3.5 cm)  
Depth: 7.75 inches (19.7 cm)  
Weight: 1 pound (0.45 kg)

### PERIPHERAL DEVICES

## SPERRY 8406 Double-sided Diskette Subsystem

### FUNCTIONAL CHARACTERISTICS

#### Storage capacity per diskette

1 megabyte (maximum 2 diskette drives per subsystem)

#### Transfer rate

62.5 kilobytes per second

### PHYSICAL CHARACTERISTICS

Width: 20.25 inches (51.5 cm)  
Height: 9.0 inches (22.9 cm)  
Depth: 16.75 inches (42.5 cm)  
Weight:

Approx. 35 pounds (15.88 kg) (with single diskette drive)  
(50 pounds, 22.68 kg, with dual drive)



## POWER REQUIREMENTS

### Nominal voltage

100, 120, 220, or 240 volts

### Nominal frequency

50 or 60 Hz

### Sperry 8439 Double-sided Diskette Subsystem

## FUNCTIONAL CHARACTERISTICS

### Storage capacity per diskette:

655 kilobytes (maximum 2  
diskette drives per subsystem).

### Transfer rate:

250 kilobytes per second.

## PHYSICAL CHARACTERISTICS

Width: 14.50" (37.18 cm)

Height: without tilt top—

3.25" (8.33 cm)

with tilt top—

4.87" (12.49 cm)

Depth: 13.10" (33.59 cm)

Weight: without power supply—

13 pounds (5.9 kg)

with power supply—

15 pounds (6.8 kg)

## POWER REQUIREMENTS

### Nominal voltage:

100, 120, 220, or 240 volts.

### Nominal frequency:

50 or 60 Hz.

### SPERRY 0798 132-column Matrix Printer

## FUNCTIONAL CHARACTERISTICS

### Print Speed

200 characters per second

### Character Sets

A selection of national sets  
available

### Character Matrix

7 x 7 standard half space dot

## PHYSICAL CHARACTERISTICS

Width: 22.6 inches (57.5 cm)

Height: 9.6 inches (24.5 cm)

Depth: 19.0 inches (48.5 cm)

Weight: 55.0 pounds (25 kg)

## POWER REQUIREMENTS

### Nominal primary power

100 or 120 volts at 60 Hz

100, 220, or 240 volts at 50 Hz

### SPERRY 425 Printer High Quality Printer

## FUNCTIONAL CHARACTERISTICS

### Print Speed

160 CPS (10 C/I)—9 x 7 Matrix

40 CPS (10 C/I)—18 x 40 Matrix

### Character Sets

A selection of national sets  
available

### Character Matrix

9 x 7—draft quality printing

18 x 40—high quality printing

## PHYSICAL CHARACTERISTICS

Width: 19.33 inches (49.1 cm)

Height: 6.22 inches (15.8 cm)

Depth: 9.65 inches (24.5 cm)

Weight: 16.5 pounds (7.5 kg)

## POWER REQUIREMENTS

### Nominal Primary Power

120/220/240v 50/60 Hz.

### SPERRY 0797 80-column Matrix Printer

## FUNCTIONAL CHARACTERISTICS

### Print Speed

80 CPS

### Character Sets

A selection of national sets  
available

### Character Matrix

9 x 7 half space dot matrix

## PHYSICAL CHARACTERISTICS

Width: 13.4 inches (34 cm)

Height: 4.25 inches (10.8 cm)

Depth: 9.6 inches (24.5 cm)

Weight: 13.2 pounds (6 kg)

### SPERRY 431 Printer Correspondence Quality Printer

## FUNCTIONAL CHARACTERISTICS

### Print Speed

55 CPS Shannon text

## Character Sets

More than 100 different type  
styles and character sets

Daisywheel full form characters

## PHYSICAL CHARACTERISTICS

Width: 23.22 inches

Height: 6.63 inches

Depth: 16.75 inches

Weight: 37 pounds

## POWER REQUIREMENTS

### Nominal primary power

120/220/240V 50/60 Hz.

### SPERRY 0789 Line Printer

## FUNCTIONAL CHARACTERISTICS

### Printing Rates

Three (3) models provide print  
speeds of 180 LPM, 300 LPM or  
640 LPM for 48 character  
font sets.

### Character Sets

48, 64, 96, 128 and 192 character  
array print bands are available.  
National Character Sets included.

## PHYSICAL CHARACTERISTICS

Width: 34 inches (86.4 cm)

Height: 44 inches (111.8 cm)

Depth: 31 inches (78.7 cm)

Weight: 300 pounds (136.1 kg)

180, 300 LPM

400 pounds (181.5 kg)

600 LPM

## POWER REQUIREMENTS

### Nominal Voltage:

100/120 Volts

### Nominal Frequency:

60 Hz\*\*

### Phase and Lines:

Single Phase—3 wire

### Nominal Load:

Approximately 180,  
300 LPM—250 Watts  
600 LPM—400 Watts

\*\* 50 Hz Models available  
100 / 200 / 240 Volts